

CONTENTS

SECTION	Page
Contents	i
Certification	ii
PART I - GENERAL INFORMATION	1
A. GENERAL	1
1. Name and Type	1
2. Date of Initial Operation	1
3. Location	1
4. Name and Address of Owner	1
5. Facility Contacts	1
B. SITE DESCRIPTION AND OPERATIONS	2
1. Facility Location, Layout and Operations	2
2. Fuel Ullage	2
3. Fuel Storage.....	2
4. Piping.....	3
5. Spill Risks.....	3
6. Chemical Storage Locations.....	4
7. Permits Required.....	4
PART II - OPERATIONAL PROCEDURES FOR SPILL PREVENTION.....	5
A. TANK REFUELING OPERATIONS	5
PART III - SPILL COUNTERMEASURES AND REPORTING	6
A. SPILL AND COUNTERMEASURES	6
B. SPILL REPORTING	7
C. TRAINING	8
D. PERSONAL PROTECTIVE EQUIPMENT (PPE).....	8
 <u>APPENDIX</u>	
A. TANK ULLAGE/FUELING LOG AND FUEL UNLOADING PROCEDURE CHECKLIST	
B. TANK INSPECTION CHECKLIST	
C. SPILL REPORTING FORM	
D. TRAINING OUTLINE AND RECORD FORM	
E. DIESEL FUEL “MATERIALS SAFETY DATA SHEET”	
F. SPILL CLEANUP KIT INFORMATION	
G. FUEL TANK DATA AND INFORMATION SHEET	
H. PERMITS	
I. PHOTOGRAPHS OF FACILITY, TANK AND PIPING	
J. FIGURE 1, FIGURE 2 and FIGURE 3 (MAPS & DRAWINGS)	

**SPILL PREVENTION, CONTROL, AND COUNTERMEASURES
BEST MANAGEMENT PLAN**

N O A A

**NATIONAL WEATHER SERVICE
National Weather Service Forecast Office & RDA Site
5324 Tri-Hill Frontage Road
Great Falls, Montana**

Designated Person Responsible for Spill Prevention (DRO):

Printed Name: Stephen Brueske - MIC

Signature: _____

Date: _____

Phone: (406) 453-9957

The Regional Environmental Compliance Officer (RECO) has reviewed the facility and determined that an SPCC Plan is not required per 40 CFR 112. This Plan is developed strictly as a Best Management Plan. The determination is based on :

_____ The facility does not exceed capacity.

 X The facility meets capacity requirements but, a discharge will not reach navigable waterways.

RECO Printed Name: Thanh Minh Trinh, P. E.
Phone: (206) 526-6647

RECO Signature: _____

Date: _____

PART I - GENERAL INFORMATION

A. GENERAL

This section of the Best Management Practices plan provides general information about the facility.

1. **Name:**
National Weather Service Forecast Office (WFO)
2. **Date of Initial Operation:** 1994— Aboveground Fuel Tank Installed
3. **Location**

National Weather Service Forecast Office (WFO) & RDA Site
Street: 5324 Tri-Hill Frontage Road
City: Great Falls
State/Zip: Montana 59404
Latitude: 47° - 27' - 35" North
Longitude: 111 ° - 23' - 07" West
Elevation: 3705 ft. MSL
4. **Name and phone number of Owner (POC)**

National Weather Service
Western Region
125 South State Street, Room 1311
Salt Lake City, Utah 84138
Phone: (801) 524-5138
5. **Facility Contacts (Environmental coordinator, Area Safety Representative, Alternate, Focal Point, First Responder)**

<u>Name</u>	<u>Title</u>	<u>Telephone Number</u>
Douglas Sherrick	Envir. Focal Point	(406) 454-1628
Stephen Brueske	MIC	(406) 453-9957

B. SITE DESCRIPTION AND OPERATIONS

This section describes the site and its operations.

1. Facility Location, Layout, and Operations

The facility is located in Cascade County, Montana, approximately 2 miles southwest of the Great Falls International Airport main terminal (Appendix J - Figure 1). The site consists of approximately 10 acres of ground (approximately 1000' long x 450' wide) with the long axis of the property running north-south. The ground is generally flat with a 1% slope towards the north. Improvements on the property include a WFO Building; a Generator Building; a Balloon Inflation Building; and a RDA Facility which includes a Radar Tower, Equipment Building, an Uninterrupted Power Building and a Generator Building. In addition, the site contains an access road, landscaping, balloon release area, parking areas, utility systems and various meteorological and communications facilities. The land, the WFO and the Inflation Building are owned by a private individual and leased to the NWS. The entire RDA facility, the WFO engine-generator and associated fuel tanks are owned by the NWS.

The WFO facilities are located on the north end of the property and contains a 175 kw diesel powered generator which is located in the generator building. Fuel is supplied from a 1000 gallon Convault Aboveground Storage Tank (AST) which is located on the south side of the building. (Appendix J - Figures 2 & 2A)

The RDA facilities are located on the south end of the property and contains an 80 kw diesel powered generator. This generator is fueled from two 240 gallon, interconnected day tanks which are located inside the generator building. (Appendix J - Figures 2 & 3)

2. Fuel Ullage

The AST and RDA tanks are normally filled when either of them becomes about one-third empty. This amount is approximately 400 gallons. Each generator is run once each week for about one-half hour for maintenance and testing purposes. The average fuel consumption of the two generators is approximately 8 gallons per hour. The generators are automatically started if the commercial power is interrupted and will continue to run until the commercial power is restored and stabilized. Under normal conditions, the tanks are filled about twice each year.

3. Fuel Storage

The WFO AST is a 1000 gallon, "Convault", rectangular shaped, horizontal tank. It is located in an unfenced area adjacent to the south wall of the Generator Building. The AST and loading area are lighted to provide good visual inspection during the hours of darkness. This AST meets the Underwriter's laboratory Standard 2085 for protected secondary containment. The primary steel tank is encased in a 6" thick reinforced concrete secondary containment vault. The AST is installed on a concrete pad. It has primary and emergency vents, as well as overfill protection that includes an automatic shutoff valve, an overfill alarm and a 7-gallon spill bucket. The AST has an interstitial monitoring device between the storage tank and concrete vault that is connected to an audible alarm system.

The RDA site operates on an independent Engine-Generator system. This system has two separate, single walled steel, 240-gallon interconnected diesel fuel tanks located inside the generator shelter. The shelter is constructed to provide secondary liquid containment for the entire contents of the two diesel fuel tanks in the event of fuel leaks or spills.

4. Piping

The WFO AST is connected to a pump on the top of the day tank via a single supply 3/4" supply line. The supply line is constructed of steel pipe and is equipped with a shut off valve and backflow preventer. The supply line is not equipped with any type of secondary containment system. This pump moves fuel from the AST into the day tank. The day tank is a 27-gallon, single-walled rectangular steel tank set in an open top spill pan. The day tank is connected to the generator by flexible rubber supply and return lines.

NOTE, Recommendation for Piping Change:

The following piping changes are recommended at the WFO site:

1. Reconfigure the fuel supply line and install it inside of a secondary containment pipe.
2. Install a fuel return line from the generator day tank to the AST. Install this line in the secondary containment pipe.

The RDA site fuel tank piping is all located in the building and above the tanks, and is fully visible for easy access and inspection at all times. This building is located approximately 600' south of the WFO AST.

5. Spill Risks (Appendix J - Figures 1 & 2)

Leaks from the WFO AST or Piping will be absorbed in the soil around the AST. In the event of a major spill from the WFO AST, and if the soil were either frozen or saturated with water, the spilled fuel may flow east across the main access road into a shallow depression, north along the access road to the frontage road roadside ditch and then east. The roadside ditch ultimately drains into the Sun River just above its confluence with the Missouri River. The distance from the WFO site to the Sun River is approximately 4-miles. The potential of spilled fuel, from the NWS site, ever reaching navigable waters is extremely small.

The RDA generator and associated fuel tanks are located on the south end of the NWS property. The land is nearly flat with a slight slope to the north. The soil is porous. The RDA Generator Shelter provides full secondary containment for the inside tanks. However, in the event that fuel should be spilled or leaked from the containment, it will flow into the ground around the RDA Generator Shelter and will be absorbed by the soil. Any spill, from the shelter or from the fill truck should be contained on the NWS property.

6. Chemical Storage Locations

In addition to the diesel fuel used for the emergency power generator, this facility also stores chemicals (e.g., oils, paint, solvents, antifreeze, cleaning compounds and pesticides) for the operation, maintenance and testing of station facilities and equipment. These are stored/used in the following location(s):

Location : (Example: Flammable locker in Station Storage Room)

- a. Unused oil in 55 gallon drum — Stored in 120 gallon secondary storage cabinet.
- b. Paint in spray cans — Stored in Flammable Locker in the Stores Room.
- c. Station Cleaning Supplies — Stored Station Janitor Closet.
- d. Lubricants in spray cans -- Stored in Flammable Locker in the Stores Room.
- e. Pesticides — Stored in Flammable Locker in the Stores Room.
- f. New Batteries — Stored in the Station Stores Room in original containers.
- g. Used Batteries — Stored in 5 gallon recycling container in Flammable Locker in the Stores Room.
- h. New Fluorescent Light tubes — Stored in original containers in the station Stores Room.
- i. Used Fluorescent Light tubes — Stored in recycling shipping box in the station electrical room.

7. Permits Required (Copies Attached in Appendix H)

- Permits Not required

Part II - OPERATIONAL PROCEDURES FOR SPILL PREVENTION

A. Tank Refueling Operations. This section discusses the procedures that shall be used during unloading of fuel from the tank truck into the AST to prevent spills. This procedure shall be documented every time refueling occurs using the form found in Appendix A. Copies of this form shall be kept for five (5) years.

1. The following procedure shall be used **before** fuel unloading: (APPENDIX A)
 - a. The Facility Manager or his designated representative should determine the available capacity (ullage) of the AST by converting the reading on the fuel gauge to gallons (See Appendix A). This ullage is communicated to the fuel supply contractor and marked in the fueling log.
 - b. Move spill containment equipment such as booms, spill barriers or spill kits into the unloading area.
 - c. Block the tank truck wheels.
 - d. Place drip pans under all pump hose fittings (if applicable) before unloading.
 - e. The Facility Manager or his designated representative and the delivery driver ensure the fill nozzle is placed in the appropriate AST appurtenance.
2. The following procedure shall be used **during** the fuel unloading period:
 - a.. The Facility Manager or his designated representative and the delivery driver shall remain with or near the vehicle and the fuel tanks at all times during unloading. Gauges on the AST and the truck, as well as the fueling nozzle, shall be continuously monitored to ensure the ullage is not exceeded. If the audible high-level alarm sounds, stop the unloading procedure immediately to ensure fuel lge is not exceeded.
3. The following procedure shall be used **after** fuel unloading is completed: (APPENDIX A)
 - a. Record the amount of fuel transferred to the AST in the log (Appendix A).
 - b. Drain the fill hose and then ensure that all drain valves are closed (if applicable) before removal of the hose from the tank
 - c. Pour any uncontaminated fuel in the drip pans, tank truck containment pool, or spill pipe spill bucket container into the AST (if it has the capacity) or dispose of appropriately.
 - d. Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.
 - e. Remove the blocks from truck wheels.
 - f. Place a copy of the fuel-unloading checklist in the SPCC BMP.

PART III - SPILL COUNTERMEASURES AND REPORTING

A. SPILL COUNTERMEASURES

This section presents countermeasures to contain, clean up, and mitigate the effects of any oil spills at this site.

A spill containment and cleanup activity will never take precedence over the safety of personnel. No countermeasures will be undertaken until conditions are safe for workers. The **SWIMS** procedure should be implemented as countermeasures:

- S -** Stop the leak and eliminate ignition sources.
 - a. Attempt to seal or some how stop leak if it can be done safely.
 - b. Attempt to divert flow away from any drainage ditch, storm sewer or sanitary sewer with a spill barrier or the contents of spill kit. The spill kit is located in the Generator Building.
 - c. Eliminate all ignition sources in the immediate area.
- W -** Warn others.
 - a. Yell out “SPILL”. Inform the person in-charge at your facility.
 - b. Account for all personnel and ensure their safety.
 - c. Notify contacts and emergency response contractor as described in the following section for assistance in control and cleanup.
- I -** Isolate the area.
 - a. Rope off the area
- M -** Minimize your exposure to the spilled material by use of appropriate clothing and protective equipment. If possible, remain upwind of the spilled material.
- S -** Standby to assist the emergency response contractor.

B. SPILL REPORTING (APPENDIX C):

1. General Notification Procedures For All Spills:

Within 24 hours, the responsible person or designee (on this plan title page or in Part 1, A.5.) is directly charged with reporting **all** oil spills that result from facility operations as follows:

- a. In the event of an emergency (e.g., fire, or injury), call **911**.
- b. Notify the appropriate persons within your WFO, Regional Office and line office:

National Weather Service:

Mike Jacob, NWS Environmental Compliance Officer (NWSH)

Phone number: (301) 713-1838 Ext. 165, Jmichael.Jacob@NOAA.GOV

Olga Kebis, NWS Safety Officer (NWSH)

Phone number: (301) 713-1838 Ext. 173, Olga.Kebis@NOAA.GOV

**Robert Kinsinger, Regional Environmental Compliance Coordinator (ECC)
in Western Region Headquarters**

Phone number: (801) 524-5138 Ext. 223 Email: robert.kinsinger@noaa.gov

- c. **NOAA Environmental Compliance and Safety Office Program:** E-mail or call your **RECO**.

WASC Thanh.M.Trinh@NOAA.GOV Phone: (206) 526-6647

- d. **LECO – Cascade County Department of Emergency Services**

Vince Kolar

(406) 454-6900

Note: LECO & RECO must determine if Federal or State notification is required and follow up accordingly. (The State of Montana requires notification when a release of petroleum products, into the soil, exceeds 25-gallons **OR** If spilled into the waters of the state, any quantity that would produce a visible oil slick, oil solids, or coat aquatic life, habitat, or property with oil.)

Montana State Disaster and Emergency Services Division (DES)

Phone: (406) 841-3911

2. Cleanup Contractor Notification

An emergency response contractor should also be notified to assist with the clean up if necessary. **NWS/WFO at Great Falls** has identified and contacted the following contractors that are available for an emergency response:

<u>Contractor(s)</u>	<u>Phone Number</u>
• Olympus Technical Services Inc .	(406) 443-3078
• Maxim Technologies, Inc	(406) 453-1641

3. Spill Report

Complete a spill report using the format provided in APPENDIX C. Send this to your RECO with a copy to the Western Region ECC.

C. Training

The Environmental/Safety Focal Point and an alternate should be trained in 1)the refueling procedures, 2)countermeasures, and 3)spill reporting. The alternate should be designated in case the primary person is off site at the time of a spill.

(See APPENDIX D for Training Outline and Training Record form)

D. Personal Protective Equipment (PPE)

- PPE information is specified in the **MSDS**
- Eye protection is accomplished by the use of **Chemical Goggles**
- Hand protection is accomplished by the use of **Nitril Gloves**
- Other clothing & equipment - if contaminated, must be removed and laundered before reuse. Items which cannot be laundered should be discarded.
- Appropriate NIOSH-approved respiratory protection to avoid inhalation of mist or vapors which may be present under hot temperature conditions.

APPENDIX A

TANK ULLAGE/FUELING LOG AND FUEL UNLOADING PROCEDURES CHECKLIST

APPENDIX A-1
TANK ULLAGE AND FUELING LOG

Station Name: _____

Tank Capacity: _____ gallons

Date	Initials	Gauge Reading	Initial Volume of Fuel in Tank ^a (Gallons)	Available Capacity or Ullage ^b (Gallons)	Quantity Added (Gallons)	Comments

Notes:

- a. From gage reading
- b. Available capacity = tank capacity - initial volume of fuel in tank

APPENDIX A-2

FUEL UNLOADING PROCEDURE CHECKLIST

Date: _____ **Tank:** _____

NWS Representative: _____ **Supplier:** _____

✓	ITEM	DESCRIPTION	COMMENTS
	The following six items must be completed <u>prior</u> to fuel unloading:		
	1	Move spill containment equipment, such as booms or spill barriers, into the unloading area.	
	2	Ensure the audible high-level alarm system and automatic shutoff valve are functioning properly (if applicable).	
	3	Determine the available capacity (ullage) of the tank by converting the reading on the fuel gauge to gallons (see Appendix A-1). The ullage should then be marked in the fueling log and communicated to the tank truck unloading contractor.	
	4	Block the wheels of the tank truck.	
	5	Place drip pans under all pump hose fittings (if applicable) after the hose is hooked up to the tank and before unloading.	
	6	Ensure the fill nozzle is placed in the appropriate tank appurtenance.	
	During unloading		
	7	Ensure that the NWS representative and the tank truck operator remain with the vehicle at all times during unloading.	
	8	Monitor the gauges on the tank and the truck continuously to ensure the ullage is not exceeded.	
	After fuel unloading is completed		
	9	Record the amount of fuel unloaded in the log (Appendix A-1).	
	10	Before removing the fill hose from the tank, ensure that it is drained and that all drain valves are closed (if applicable).	
	11	Any fuel accumulated in the drip pans or spill container on the fill pipe should be poured into the tank (if it has the capacity) or disposed of appropriately (describe how it was disposed of, if applicable).	
	12	Inspect the tank truck before removing the blocks to ensure the lines have been disconnected from the tank.	
	13	Remove the blocks from the tank truck wheels.	
	14	Place a copy of this fuel unloading procedure checklist in the Best Management Plan.	

APPENDIX B

TANK INSPECTION CHECKLIST

MONTHLY INSPECTION CHECKLIST			
Date of Inspection:		Tank Name or No.:	
Date of Last Inspection:		Inspected by:	Signature:
A. TANKS	YES	NO	NOTES
1. Are tanks marked properly?			
2. Is area atop and around tank and within berm free of combustible materials and debris? stains?			
3. Is there any oil on the ground, concrete, or asphalt around the tank?			
4. Are there any visible cracks or indications of corrosion on the tank, at fittings, joints, or seals (such as paint peeling or rust spots)?			
5. Are there any raised spots, dents, or cracks on the tank?			
6. Does it appear that the foundation has shifted or settled?			
7. Is the fuel gauge working properly?			
8. Are all vents clear so they may properly operate?			
9. If rainwater is present within containment, does capacity remain for spill control, if applicable?			
B. PIPING			
1. Is there any oil on the outside of or under any aboveground piping, hoses, fittings, or valves?			
2. Are aboveground piping, hoses, fittings, or valves in good working condition?			
C. SECURITY/SAFETY/SPILL COUNTERMEASURES			
1. Are lights working properly to detect a spill at night?			
2. Are all locks in the "lock" position?			
3. Are all warning signs properly posted and readable?			
4. Are vehicle guard posts in place and properly secured (if applicable)?			
5. Are spill kits easily accessible, protected from the weather, complete, and replenished if necessary?			
Corrective Actions Required:			

ANNUAL INSPECTION CHECKLIST (Page 1 of 1)			
Date of Inspection:		Tank Name or No.:	
Date of Last Inspection:		Inspected by:	
		Signature:	
A. MONTHLY CHECKLIST	YES	NO	NOTES
1. Have monthly inspection checklists been completed?			
B. TANKS			
1. Are all alarms and automatic shutoff devices working properly?			
2. Is interstitial monitor functioning properly (if applicable)?			
C. OTHER			
1.			
Corrective Actions Required:			

APPENDIX C

SPILL REPORTING

APPENDIX C
SPILL REPORTING

1. GENERAL		
Name of Facility:	Address:	
Completed By:	Organization:	
Position:	Phone:	
2. SPILL INFORMATION		
Date:	Time:	
Location at Facility:	Quantity:	
Substance Spilled:	Other:	
3. OUTSIDE NOTIFICATIONS: (Insert telephone numbers)		
Agencies	Record the external regulatory agency representative name when making the calls.	Date & Time
Call 911 for emergency assistance		
Regional Management (see Part III Section B subparagraph 1.b) (801) 524-5138 Ext.223		
Line Office Environmental Compliance Officer (see Part III Section B subparagraph 1.b) (301) 713-1838 Ext 165 or Ext 173		
NOAA, RECO (see Part III Section B subparagraph 1.c) (205) 526-6647		
EPA National Response Center or U.S. Coast Guard : (800) 424-8802		
State of Montana Disaster and Emergency Services Division Phone (406) 841-3911		
LECO — Cascade County Department of Emergency Services Phone (406) 454-6900		
4. INFORMATION ON SOURCE AND CAUSE		
5. DESCRIPTION OF ENVIRONMENTAL DAMAGE		
6. CLEANUP ACTION(S) TAKEN		
7. CORRECTIVE ACTION(S) TO PREVENT FUTURE SPILLS		

Note: All information must be filled in. If something is unknown, write “unknown”.
Copies must be sent, preferably by e-mail, to the NWS/NOAA personnel listed above.

APPENDIX D

TRAINING OUTLINE & TRAINING RECORD

APPENDIX D-1

TRAINING OUTLINE: SPILL PREVENTION, CONTROL AND COUNTERMEASURES

Training will be provided for facility personnel at the following times:

1. System startup or whenever new equipment is installed
2. Within the first week of employment for new personnel
3. Annually

The training will include complete instruction in the elements of the facility's Spill Prevention, Control, and Countermeasure plan and will include the following:

1. Pollution control laws, rules, and regulations including a summary of Title 40 of the Code of Federal Regulations Part 112 "Oil Pollution Prevention" (see Attachment)
2. Fuel Storage System
 - A. Purpose and application of the following system elements:
 1. Tanks
 2. Piping
 3. Pumps
 4. Accessory equipment
 5. Electronic monitors
 - B. Operation, maintenance, and inspection of system elements
3. Spill Prevention
 - A. Potential spill sources
 - B. Spill flow direction and impact on navigable waters
 - C. Procedures to prevent spills, especially during fuel unloading
4. Spill Control
 - A. Secondary containment
 - B. Safety valves
 - C. Pump and equipment shutoff switches
 - D. Use of catch basin inlet covers or other diversionary devices
5. Spill Countermeasures
 - A. Location and use of emergency phone numbers
 - B. Location and use of fire extinguishers
 - C. Location and use of spill cleanup kit
 - D. Stopping the leak

APPENDIX D-2

TRAINING REPORT FORM

DATE OF TRAINING	EMPLOYEE TRAINED	TRAINER	REMARKS

APPENDIX E

MATERIALS SAFETY DATA SHEET ATTACHMENT

APPENDIX F

SPILL CLEANUP KIT INFORMATION ATTACHMENT

APPENDIX G

FUEL TANK DATA AND INFORMATION

APPENDIX H

PERMITS

APPENDIX I

PHOTOGRAPHS OF FACILITY TANKS AND PIPING

APPENDIX J (MAPS & DRAWINGS)

FIGURE 1:Site Location Map

FIGURE 2:Topographic Map & Site Layout

FIGURE 3: Site Piping Diagram